(19) World Intellectual Property **Organization**

International Bureau



(43) International Publication Date 23 June 2005 (23.06.2005)

PCT

(10) International Publication Number WO 2005/056815 A1

(51) International Patent Classification7: C12N 9/06

C12Q 1/00,

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(21) International Application Number:

PCT/GB2004/004817

(22) International Filing Date:

17 November 2004 (17.11.2004)

(25) Filing Language:

English

(26) Publication Language:

English

- (30) Priority Data: 0328784.4 11 December 2003 (11.12.2003)
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
- GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: NITROREDUCTASE BIOSENSORS FOR DETECTING NITRO-COMPOUNDS

-	T7 promoter primer #69348-	3		
pET upstream primer #69214-3	T7 promoter	lac operator	Xba I	rbs
<u>AGATCTCGATCCCGCGAAATTAATACGACTCACTATAGGGGAATTGTGAGCGGATAACAATTCCCCTCTAGAAATAATTTTGTTTAACTTTAAGAAGGAGA</u>				
Nco l	His-Tag		Ndel Nhel	T7•Tag
TATACCATGGGCAGCAGC	CATCATCATCATCATCACAGC HIBHIBHIBHIBHIBBer		GGCAGCCATATGGCTAGCA GlySerHisMetAlaSerM	
BamHIE∞	RiSaci Sall Hindii	EBG 1	thrombin His•Tag	
ATGGGTCGCGGATCCGAA MetGlyArgGlySerGlu	TTCGAGCTCCGTCGACAAGCT PheGluLeuArgArgGlnAlo	TGCGGCCGCACTCGAGCA CysGlyArgThrArgAlo	CCACCACCACCACCACTGA ProProProProLeuA	GATCCGGCTGCTAACAAAGCCC rgSerGiyCysEnd
	<i>Bpu</i> 1102_l		T7 terminator	
GAAAGGAAGCTGAGTTGGCTGCTGCCACCGCTGAGCAATAACTAGCATAACCCCTTGGGGCCTCTAAACGGGTCTTGAAGGGGTTTTTTTG				
	T7 terminator prim	ner #69337-3		

(57) Abstract: This invention provides a sensing device comprising an electrode comprising a noble metal layer, on which layer is located a biological material having nitroreductase activity. This invention further provides a method of detecting nitro group containing compounds, the method comprising the steps of: (a) providing a sensing device of the first aspect of the invention and a reference electrode; (b) applying a potential between the electrodes; (c) measuring the current; (d) contacting the sensing device with a sample of substrate material to be tested; and (e) measuring the current change.

